

This listing of claims will replace all prior versions, and listings, of claims in the application:

Amendments to the Claims:

Claim 1 (original): Sensor arrangement for measuring anesthesia parameters from the head of a patient the sensor arrangement comprising a base element and an array of electrodes and an optical sensor for monitoring substances in tissues, in which sensor arrangement all electrodes and sensors are connected to a single connector or a series of
5 connectors attached to the base element for connecting the sensor arrangement to a patient monitor.

Claim 2 (currently amended): The arrangement of claim 1 wherein ~~a the~~ first and ~~a the~~ second electrode of the array of electrodes are NMT stimulus electrodes located just posterior to the lower part of the pinna and just anterior to the tragus to stimulate the facial nerve.

Claim 3 (currently amended): The arrangement of claim 1 or 2 wherein three of the electrodes of the array of electrodes are used to measure EEG and EMG, ~~a the~~ first of the three electrodes being located on the temple area between the corner of the eye and the hairline, ~~a the~~ second electrode of the three electrodes being located above the eye at the
5 same level as ~~a the~~ third electrode of the three electrodes which is located between the eyebrows of the patient at the center of the forehead, about 4 cm above the nose, and ~~a the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 4 (original): The arrangement of claim 3 wherein the electrodes are used to measure NMT response.

Claim 5 (currently amended): The arrangement of claim 1 or 2 wherein three of the

electrodes of the array are used to measure EEG and EMG, a ~~the~~ first of the three electrodes being located on location F2 or F4 of the International 10-20 system, a ~~the~~ second electrode of the three electrodes being located between the eyebrows of the patient
5 at the center of the forehead, about 4 cm above the nose, and a ~~the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 6 (original): The arrangement of claim 5 wherein there is an additional electrode located on the temple area between the corner of the eye, and the additional electrode and the second and the third electrodes of the three electrodes are used to measure NMT response.

Claim 7 (currently amended): The arrangement of claim 1, ~~2, 3, 4, 5 or 6~~ wherein the optical sensor for monitoring substances in tissues is attached to the forehead.

Claim 8 (currently amended): The arrangement of claim 1, ~~2, 3, 4, 5 or 6~~ wherein the optical sensor for monitoring substances in tissues is attached to the root of the nose.

Claim 9 (currently amended): The arrangement of claim 1, ~~2, 3, 4, 5 or 6~~ wherein the optical sensor for monitoring substances in tissues is attached to the ear.

Claim 10 (original): The arrangement of claim 1 wherein the optical sensor for monitoring substances in tissues is a SpO2 sensor.

Claim 11 (original): Sensor arrangement for measuring anesthesia parameters from the head of a patient the sensor arrangement comprising a base element and an array of electrodes and an optical sensor for monitoring substances in tissues and a mechanical NMT sensor, in which sensor arrangement all electrodes and sensors are connected to a
5 single connector or a series of connectors attached to the base element for connecting the

sensor arrangement to a patient monitor.

Claim 12 (currently amended): The arrangement of claim 11 wherein a ~~the~~ first and a ~~the~~ second electrode of the array of electrodes are NMT stimulus electrodes located just posterior to the lower part of the pinna and just anterior to the tragus to stimulate the facial nerve.

Claim 13 (currently amended): The arrangement of claim 11 or 12 wherein three of the electrodes of the array of electrodes are used to measure EEG and EMG, a ~~the~~ first of the three electrodes being located on the temple area between the corner of the eye and the hairline, a ~~the~~ second electrode of the three electrodes being located above the eye at the
5 same level as a ~~the~~ third electrode of the three electrodes which is located between the eyebrows of the patient at the center of the forehead, about 4 cm above the nose, and a ~~the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 14 (original): The arrangement of claim 13 wherein the mechanical NMT sensor is a piezoelectric sensor located over either the procerus, frontalis, corrugator or orbicularis muscle or a combination of these to record the response to the NMT stimulus.

Claim 15 (currently amended): The arrangement of claim 11 or 12 wherein three of the electrodes of the array are used to measure EEG and EMG, a ~~the~~ first of the three electrodes being located on location F2 or F4 of the International 10-20 system, a ~~the~~ second electrode of the three electrodes being located between the eyebrows of the patient
5 at the center of the forehead, about 4 cm above the nose, and a ~~the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 16 (original): The arrangement of claim 15 wherein the mechanical NMT sensor is

a mechanical piezoelectric sensor located over either the procerus, frontalis, corrugator or orbicularis muscle or a combination of these to record the response to the NMT stimulus.

Claim 17 (currently amended): The arrangement of claim 11, ~~12, 13, 14, 15 or 16~~ wherein the optical sensor for monitoring substances in tissues is attached to the forehead.

Claim 18 (currently amended): The arrangement of claim 11, ~~12, 13, 14, 15 or 16~~ wherein the optical sensor for monitoring the substances in tissues is attached to the root of the nose.

Claim 19 (currently amended): The arrangement of claim 11, ~~12, 13, 14, 15 or 16~~ wherein the optical sensor for monitoring substances in tissues is attached to the ear.

Claim 20 (original): The arrangement of claim 11 wherein the optical sensor for monitoring substances in tissues is a SpO2 sensor.

Claim 21 (original): Sensor arrangement for measuring anesthesia parameters from the head of a patient the sensor arrangement comprising a base element and an array of electrodes for measuring EEG, EMG and NMT, in which sensor arrangement all electrodes and sensors are connected to a single connector or a series of connectors attached to the base
5 element for connecting the sensor arrangement to a patient monitor.

Claim 22 (currently amended): The arrangement of claim 21 wherein a ~~the~~ first and a ~~the~~ second electrode of the array of electrodes are NMT stimulus electrodes located just posterior to the lower part of the pinna and just anterior to the tragus to stimulate the facial nerve.

Claim 23 (currently amended): The arrangement of claim 21 or 22 wherein three of the electrodes of the array of electrodes are used to measure EEG and EMG, a ~~the~~ first of the

three electrodes being located on the temple area between the corner of the eye and the hairline, a ~~the~~ second electrode of the three electrodes being located above the eye at the
5 same level as a ~~the~~ third electrode of the three electrodes which is located between the eyebrows of the patient at the center of the forehead, about 4 cm above the nose, and a ~~the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 24 (original): The arrangement of claim 23 wherein the electrodes are used to measure NMT response.

Claim 25 (currently amended): The arrangement of claim 21 and 22 wherein three of the electrodes of the array are used to measure EEG and EMG, a ~~the~~ first of the three electrodes being located on location F2 or F4 of the International 10-20 system, a ~~the~~ second electrode of the three electrodes being located between the eyebrows of the patient
5 at the center of the forehead, about 4 cm above the nose, and a ~~the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 26 (original): The arrangement of claim 25 wherein there is an additional electrode located on the temple area between the corner of the eye, and the additional electrode and the second and the third electrodes of the three electrodes are used to measure NMT response.

Claim 27 (original): Sensor arrangement for measuring anesthesia parameters from the head of a patient the sensor arrangement comprising a base element and an array of electrodes and a mechanical NMT sensor, in which sensor arrangement all electrodes and sensors are connected to a single connector or a series of connectors attached to the base
5 element for connecting the sensor arrangement to a patient monitor.

Claim 28 (currently amended): The arrangement of claim 27 wherein a ~~the~~ first and a ~~the~~ second electrode of the array of electrodes are NMT stimulus electrodes located just posterior to the lower part of the pinna and just anterior to the tragus to stimulate the facial nerve.

Claim 29 (currently amended): The arrangement of claim 27 or 28 wherein three of the electrodes of the array of electrodes are used to measure EEG and EMG, a ~~the~~ first of the three electrodes being located on the temple area between the corner of the eye and the hairline, a ~~the~~ second electrode of the three electrodes being located above the eye at the
5 same level as a ~~the~~ third electrode of the three electrodes which is located between the eyebrows of the patient at the center of the forehead, about 4 cm above the nose, and a ~~the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 30 (original): The arrangement of claim 29 wherein the mechanical NMT sensor is a piezoelectric sensor located over either the procerus, frontalis, corrugator or orbicularis muscle or a combination of these to record the response to the NMT stimulus.

Claim 31 (currently amended): The arrangement of claim 27 or 28 wherein three of the electrodes of the array are used to measure EEG and EMG, a ~~the~~ first of the three electrodes being located on location F2 or F4 of the International 10-20 system, a ~~the~~ second electrode of the three electrodes being located between the eyebrows of the patient
5 at the center of the forehead, about 4 cm above the nose, and a ~~the~~ fourth electrode of the array of electrodes is located below the eye for enhancing the EEG and EMG measurement.

Claim 32 (original): The arrangement of claim 21 wherein the mechanical NMT sensor is a piezoelectric sensor located over either the procerus, frontalis, corrugator or orbicularis

Preliminary Amdt. dated March 4, 2004
Docket No. 3003-00041

muscle or a combination of these to record the response to the NMT stimulus.